

WE CLAIM:

1. A stand alone edible film for oral mucoadhesion comprising at least three types of film forming agents and not including pullulan.
2. The stand alone edible film of claim 1 wherein the film forming agents comprise a maltodextrin, a hydrocolloid and a filler.
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3. The stand alone edible film of claim 2 wherein the maltodextrin comprises about 5% to about 60% by dry weight of the stand alone edible film.
4. The stand alone edible film of claim 2 wherein the maltodextrin has a dextrose equivalent of less than 20.
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5. The stand alone edible film of claim 2 wherein the maltodextrin has a dextrose equivalent of 10 or less.
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6. The stand alone edible film of claim 2 wherein the maltodextrin has a dextrose equivalent of 1 or less.
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7. The stand alone edible film of claim 2 wherein the filler comprises about 1% to about 30% by dry weight of the stand alone edible film.
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8. The stand alone edible film of claim 7 wherein the filler is selected from the group consisting of microcrystalline cellulose, cellulose polymers including wood, magnesium and calcium carbonate, ground limestone, silicates including magnesium and aluminum silicate, clay, talc, titanium dioxide, mono-calcium phosphate, di-calcium phosphate, tri-calcium phosphate and combinations thereof.
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9. The stand alone edible film of claim 2 wherein the hydrocolloid further comprises about 10% to about 50% by dry weight of the stand alone edible film.
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10. The stand alone edible film of claim 9 wherein the hydrocolloid is selected from the group consisting of natural seaweeds, natural seed gums, natural plant exudates, natural fiber extracts, biosynthetic gums, gelatins, biosynthetic processed starch or cellulosic materials, alginates, sodium alginate, calcium alginate, carrageenan, guar gum, locust gum, tara gum, gum arabic, ghatti gum, agar gum, xanthan gum, pectin and combinations thereof.

11. The stand alone edible film of claim 1 wherein the stand alone edible film includes a medicament.

12. The stand alone edible film of claim 11 wherein the medicament is selected from the group consisting of a pH control agent, an oral care agent, a breath freshening agent, a pharmaceutical agent, a nutraceutical agent, a salivary stimulant agent, a vitamin, a mineral, an anti-microbial agent, an anti-plaque agent, an anti-gingivitis agent, a tartar or caries control agent and combinations thereof.

13. An edible film comprising a maltodextrin, a hydrocolloid and a bulk filler and not including a pullulan.

10 14. The edible film of claim 13 wherein the maltodextrin has a dextrose equivalent of less than 20.

15 15. The edible film of claim 13 wherein the maltodextrin has a dextrose equivalent of 10 or less.

16. The edible film of claim 13 wherein the maltodextrin has a dextrose equivalent of 1 or less.

17. The edible film of claim 13 wherein the maltodextrin constitutes about 20% to about 40% by dry weight of the edible film.

18. The edible film of claim 13 wherein the hydrocolloid constitutes about 30% to about 40% by dry weight of the edible film.

20 19. The edible film of claim 13 wherein the bulk filler comprises about 1% to about 30% by dry weight of the edible film.

20 20. An edible film comprising 5% to 60% by weight maltodextrin having a dextrose equivalent of less than 20, a hydrocolloid and a bulk filler not including pullulan.

25 21. The edible film of claim 20 wherein the maltodextrin constitutes about 20% to about 40% by dry weight of the edible film.

22. The edible film of claim 20 wherein the hydrocolloid constitutes about 30% to about 40% by dry weight of the edible film.

23. The edible film of claim 20 wherein the bulk filler comprises about 1% to about 30% by dry weight of the edible film.

24. The edible film of claim 20 wherein the maltodextrin has a dextrose equivalent of 10 or less.

5 25. The edible film of claim 20 wherein the maltodextrin has a dextrose equivalent of 1 or less.

26. A method of producing an edible film for oral mucoadhesion comprising the steps of:

preparing a base solution including at least three types of film
10 forming agents other than pullulan; and
processing the base solution to form the edible film.

27. The method of claim 26 wherein the film forming agents comprise a maltodextrin ranging from about 5% to about 60% by dry weight of the edible film, a hydrocolloid ranging from about 10% to about 50% by dry weight of the edible 15 film and a filler ranging from about 1% to about 30% by dry weight of the edible film.

28. The method of claim 26 wherein the maltodextrin has a dextrose equivalent of less than 20.

29. The method of claim 26 wherein the base solution is processed by 20 adding a therapeutically effective amount of a medicament selected from the group consisting of a pH control agent, an oral care agent, a breath freshening agent, a pharmaceutical agent, a nutraceutical agent, a salivary stimulant agent, a vitamin, a mineral, an anti-microbial agent, an anti-plaque agent, an anti-gingivitis agent, a tartar or caries control agent and combinations thereof.

25 30. A method of oral treatment comprising the steps of:

providing a food-grade film including at least three types of film
forming agents and a medicament;

orally consuming the food-grade film; and
releasing the medicament in an oral cavity.

31. The method of claim 30 wherein the film forming agents comprise a maltodextrin ranging from 5% to about 60% by dry weight of the edible film, a 5 hydrocolloid ranging from about 10% to about 50% by dry weight of the edible film and a filler ranging from about 1% to about 30% by dry weight of the edible film.

32. The method of claim 31 wherein the maltodextrin has a dextrose equivalent of less than 20.

33. The method of claim 30, wherein the medicament is selected from the 10 group consisting of a pH control agent, an oral care agent, a breath freshening agent, a pharmaceutical agent, a nutraceutical agent, a salivary stimulant agent, a vitamin, a mineral, an anti-microbial agent, an anti-plaque agent, an anti-gingivitis agent, a tartar or caries control agent or combinations thereof.

34. The method of claim 30, wherein the medicament is released in the 15 oral cavity to treat halitosis, dental plaque, gingivitis, xerostomia, dry mouth, oral malodor or combinations thereof.